

00000000 00000000000000000000000000000	RRRRRRRR RR		FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
		\$			

CR VO

VAX-11 Bliss-32 V4.0-742 PEDISKSVMSMASTER: [F11A.SRC]CREFCB.B32;1

MODULE CREFCB (
LANGUAGE (BLISS32),
IDENT = 'V04-000'

BEGIN

0014

0016

0018

0029 0030 0031

0036 0037

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FACILITY: F11ACP Structure Level 1

ABSTRACT:

1.

These routines create and initialize a file control block from the given file header.

ENVIRONMENT:

STARLET operating system, including privileged system services and internal exec routines. These routines must be called in kernel mode.

AUTHOR: Andrew C. Goldstein, CREATION DATE: 14-Dec-1976 16:48 MODIFIED BY:

A0100 ACG0001 Andrew C. Goldstein, 10-Oct-1978 20:01 Previous revision history moved to F11A.REV

CREVO	58 59 60 61 63 64 65 66	0058 0059 0060 0061 0376 0377 0378 0379 0380	LIBRARY 'SYS\$LIBRARY:LIB.L32'; REQUIRE 'SRC\$:FCPDEF.B32'; FORWARD ROUTINE CREATE_FCB, UPDATE_FCB : NOVALU	\$ 14 16-Sep-1984 00:54:07 14-Sep-1984 12:29:25	VAX-11 Bliss-32 V4.0-742 DISK\$VMSMASTER:[F11A.SRC]CREFCB.B32;1 (1

CRE VO4

```
CREFCB
VO4-000
                                                                                                                                 VAX-11 Bliss-32 V4.0-742
DISK$VMSMASTER: [F11A.SRC]CREFCB.B32;1
     68
69
70
                                   GLOBAL ROUTINE CREATE_FCB (HEADER) =
    777777890123345678901234567890123
                                      FUNCTIONAL DESCRIPTION:
                                              This routine creates an FCB and initializes it according to the given file header.
                                      CALLING SEQUENCE:
CREATE_FCB (ARG1)
                                      INPUT PARAMETERS:
                                               ARG1: address of file header
                                      IMPLICIT INPUTS:
                                               NONE
                       0398
0399
                                      OUTPUT PARAMETERS:
                       0400
                                              NONE
                       0401
                       0402
                                      IMPLICIT OUTPUTS:
                                              NONE
                       0404
                                      ROUTINE VALUE:
                                               ADDRESS OF FCB
                                      SIDE EFFECTS:
                                              FCB created and initialized
                       0410
0411
0412
0413
0414
0415
0416
0417
0418
                                  BEGIN
                                  MAP
                                               HEADER
                                                                      : REF BBLOCK;
                                                                                            ! file header argument
    104
    105
                                   LOCAL
    106
                                              FCB
                                                                      : REF BBLOCK;
                                                                                              ! address of FCB created
    108
                                   EXTERNAL ROUTINE
    109
                                              ALLOCATE,
INIT_FCB;
                                                                                              ! allocate dynamic memory ! initialize contents of FCB
    110
    111
                                      Allocate an FCB sized and typed block. Then use the common routine to init it.
                                  FCB = ALLOCATE (FCB$C_LENGTH, FCB_TYPE);
FCB[FCB$L_WLFL] = FCB[FCB$L_WLFL];
FCB[FCB$L_WLBL] = FCB[FCB$L_WLFL];
FCB[FCB$L_STVBN] = 1;
INIT_FCB T.FCB, .HEADER);
RETURN .FCB;
    116
                                                                                              ! init null window list
    118
                                                                                              ! init start VBN to 1
    120
121
122
123
                                   END:
                                                                                              ! end of routine CREATE_FCB
```

CRE

: 1

CRE

					.TITLE	CREF CB \V04-000\	
					.EXTRN	ALLOCATE, INIT_FCB	
					.PSECT	\$CODE\$,NOWRT,2	
0000G 10 14 20 0000G	7E CF 52 A2 A2 A2 CF 50	B4 10 10 04	0004 7E D4 8F 9A 02 FB 50 D0 A2 9E A2 9E 01 D0 AC DD 52 DD 04 52 DD 04	00002 00008 00000 00010 00015 0001A 0001E 00021	ENTRY CLRL MOVZBL CALLS MOVL MOVAB MOVAB MOVL PUSHL PUSHL CALLS MOVL RET	CREATE_FCB, Save R2 -(SP) #180, -(SP) #2, ALLOCATE R0, FCB 16(FCB), 16(FCB) 16(FCB), 20(FCB) #1, 44(FCB) HEADER FCB #2, INIT_FCB FCB, R0	0381 0429 0430 0431 0432 0433 0434 0436

; Routine Size: 44 bytes, Routine Base: \$CODE\$ + 0000

```
F 14
16-Sep-1984 00:54:07
14-Sep-1984 12:29:25
CREFCB
VO4-000
                                                                                                           VAX-11 Bliss-32 V4.0-742
DISK$VMSMASTER: [F11A.SRC]CREFCB.B32;1
                             GLOBAL ROUTINE UPDATE_FCB (HEADER) : NOVALUE =
   FUNCTIONAL DESCRIPTION:
                                       This routine updates the file attributes of the file's primary FCB, if any, with the file attributes of the given header. The file size
                                       is preserved.
                               CALLING SEQUENCE:
UPDATE_FCB (ARG1)
                                INPUT PARAMETERS:
                                       ARG1: address of file header
                               IMPLICIT INPUTS:
                                       NONE
                               OUTPUT PARAMETERS:
                                       NONE
                               IMPLICIT OUTPUTS:
                                       PRIMARY_FCB: address of file FCB or 0
                               ROUTINE VALUE:
                                       NONE
                               SIDE EFFECTS:
                                      FCB is updated if it exists
                             BEGIN
                             MAP
                                       HEADER
                                                          : REF BBLOCK;
                                                                            ! file header arg
                             LOCAL
                                                                 BBLOCK,
                                                                                local pointer to FCB
                                                          : REF
                                                                 BBLOCK,
                                                                                pointer to header map area
                                       MAP POINTER
                                                           : REF BBLOCK:
                                                                              ! pointer to scan map
                             EXTERNAL
                                       PRIMARY_FCB
                                                                              ! FCB of file in process
! LBN of file header
                                                           : REF BBLOCK,
                                       HEADER_[BN;
                             FCB = .PRIMARY FCB;
IF .FCB EQL O THEN RETURN;
                               Get the known constants and the simple stuff from the file header
                                (i.e., header LBN, file ID, starting VBN, file owner and file protection).
```

CRI

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CREFCB
VO4-000
                                                                                                                                                                                                                                       VAX-11 Bliss-32 V4.0-742 Page DISK$VMSMASTER:[F11A.SRC]CREFCB.B32;1
                                                             FCB[FCB$L_HDLBN] = .HEADER_LBN;
FCB[FCB$W_FID_NUM] = .HEADER[FH1$W_FID_NUM];
FCB[FCB$W_FID_SEQ] = .HEADER[FH1$W_FID_SEQ];
FCB[FCB$W_UICMEMBER] = .HEADER[FH1$B_UICMEMBER];
FCB[FCB$W_UICGROUP] = .HEADER[FH1$B_UICGROUP];
FCB[FCB$W_FILEPROT] = .HEADER[FH1$W_FILEPROT];
IF .HEADER[FH1$V_SPOOL] THEN FCB[FCB$V_$POOL] = 1;
FCB[FCB$L_EFBLK] = ROT (.BBLOCK[HEADER[FH1$W_RECATTR], FAT$L_EFBLK], 16);
IF .FCB[FCB$L_EFBLK] NEQ 0
AND .BBLOCK[HEADER[FH1$W_RECATTR], FAT$W_FFBYTE] EQL 0
THEN FCB[FCB$L_EFBLK] = .FCB[FCB$L_EFBLK] - 1;
                                          Now scan the map area. Get the starting LBN if the f 2 is contiguous.
                                                              MAP_AREA = .HEADER + .HEADER[FH1$B_MPOFFSET]*2;
MAP_POINTER = .MAP_AREA + FM1$C_POINTERS;
FCB[FCB$W_SEGN] = .MAP_AREA[FM1$B_EX_SEGNUM];
                                                              FCB[FCB$L_STLBN] = 0;
IF .HEADER[FH1$V_CONTIG]
THEN
                                                                                                                                                                        ! assume non-contiguous file
                                                                         BEGIN
FCB[FCB$L STLBN] = .MAP_POINTER[FM1$W_LOWLBN]; ! get low order LBN
(FCB[FCB$[_STLBN])<16,8> = .MAP_POINTER[FM1$B_HIGHLBN]; ! and high order
                                                               IF .FCB[FCB$L_EFBLK] GTR .FCB[FCB$L_FILESIZE]
THEN FCB[FCB$[_EFBLK] = .FCB[FCB$L_FILESIZE];
                                                              END:
                                                                                                                                                                        ! end of routine UPDATE_FCB
                                                                                                                                                                                                   .EXTRN
                                                                                                                                                                                                                       PRIMARY_FCB, HEADER_LBN
                                                                                                                                               001C 00000

D0 00002

13 00007

D0 00009

D0 00013

9B 00018

9B 00010

B0 00022

E1 00027

88 0002C

9E 00034

13 00039

B5 00038

12 00038

D7 00040

9A 00042

3E 00046

9E 0004A
                                                                                                                                                                                                   .ENTRY
                                                                                                                                                                                                                       UPDATE FCB, Save R2,R3,R4
PRIMARY_FCB, FCB
                                                                                                      52
                                                                                                                                                                                                                                                                                                                                                 0486
                                                                                                                         0000G
                                                                                                                                                                                                   MOVL
                                                                                                                                                                                                  BEQL
                                                                                                                                                                                                                                                                                                                                                 0487
                                                                                                                                                                                                                      4$
HEADER_LBN, 52(FCB)
HEADER, R3
2(R3), 36(FCB)
8(R3), 88(FCB)
9(R3), 90(FCB)
10(R3), 112(FCB)
#4, 13(R3), 1$
#16, 34(FCB)
60(FCB), R4
#16, 22(R3), (R4)
2$
26(R3)
2$
(R4)
1(R3), R0
                                                                                                                                           64FC3333340020
                                                                                                                         0000G
                                                                                                                                                                                                                                                                                                                                                 0494
                                                                                                      A2522
A224
A254
A354
                                                                                                                                                                                                                                                                                                                                                 0495
                                                                                                                              04
02
08
09
0A
                                                                                                                                                                                                   MOVL
                                                                                                                                                                                                  MOVL
MOVZBW
MOVZBW
                                                                                         2458A70D2
                                                                                                                                                                                                                                                                                                                                                 0498
                                                                                                                                                                                                  MOVW
                                                                                                                                                                                                  BBC
                                                                                                                                                                                                                                                                                                                                                 0500
                                                                                                                                                                                                  BISB2
MOVAB
                                                                                                                              30
                                                                                                                                                                                                                                                                                                                                                 0501
                                                                                                                                                                                                  ROTL
                                                                                                                                                                                                  BEQL
                                                                                                                                                                                                                                                                                                                                                0502
                                                                                                                                           A3
02
64
A3
                                                                                                                                                                                                   TSTW
                                                                                                                              1A
                                                                                                                                                                                                  BNEQ
                                                                                                                                                                                                  DECL
MOVZBL
MOVAW
                                                                                                                                                                                                                                                                                                                                                0504
                                                                                                                                                                                                                      1(R3), RO
(R3)[RO], MAP_AREA
10(R1), MAP_POINTER
                                                                                                       50
51
50
                                                                                                                              OA
                                                                                                                                                                                                                                                                                                                                                0510
                                                                                                                                                                                                   MOVAB
```

CRI

```
H 14
16-Sep-1984 00:54:07
14-Sep-1984 12:29:25
CREFCB
VO4-000
                                                                                                                       VAX-11 Bliss-32 V4.0-742
DISK$VMSMASTER: [F11A.SRC]CREFCB.B32;1
                                                                                                               (MAP_AREA), 42(FCB)
48(FCB)
12(R3)
                                                                                 0004E
00052
00055
00058
0005A
0005F
00063
3$:
00067
00069
00060 4$:
                                              ZA
                                                    A2
                                                                             9B 45 8 3 9 0 1 5
                                                                                                     MOVZBW
                                                                        612399066442
                                                                                                     CLRL
                                                                                                                                                                              0513
0514
                                                                                                     BGEQ
                                                                                                               2(MAP_POINTER), 48(FCB)
(MAP_POINTER), 50(FCB)
(R4), 56(FCB)
                                                                                                                                                                              0517
0518
0522
                                                                                                     MOVZWL
                                                                                                     MOVB
                                                                                                     CMPL
                                                                                                     BLEQ
                                                                 38
                                                                             04
                                                                                                                56(FCB), (R4)
                                                     64
                                                                                                     MOVL
; Routine Size: 110 bytes.
                                          Routine Base: $CODE$ + 002C
   214
215
216
                                                     PSECT SUMMARY
                                                                                      Attributes
          Name
                                            Bytes
   $CODE$
                                                   154 NOVEC, NOWRT, RD , EXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
                                           Library Statistics
                                                             ----- Symbols -----
                                                                                                                       Processing
                                                                                                       Pages
          File
                                                             Total
                                                                          Loaded Percent
                                                                                                       Mapped
                                                                                                                        Time
    $255$DUA28:[SYSLIB]LIB.L32;1
                                                             18619
                                                                                                       1000
                                                                               31
                                                                                                                          00:01.9
                                                      COMMAND QUALIFIERS
          BLISS/CHECK=(FIELD, INITIAL, OPTIMIZE)/LIS=LIS$:CREFCB/OBJ=OBJ$:CREFCB MSRC$:CREFCB/UPDATE=(ENH$:CREFCB)
                     154 code + 0 data bytes
00:08.3
00:25.9
  Run Time:
```

Elapsed Time:

Lines/CPU Min: 3830 Lexemes/CPU-Min: 17470 Memory Used: 102 pages Compilation Complete

CR

0164 AH-BT13A-SE VAX/VMS V4.0

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